ORIGINAL

ORIGINAL FILE

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED
JUL 23 1992
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	
Amendment of Section 90.239 of the Commission's Rules to Adopt Permanent Regulations for Automatic Vehicle Monitoring Systems	RM No. 8013

COMMENTS OF
LOCATION SERVICES

1. Location Services ("LS"), by its attorneys, hereby submits its comments concerning the above-referenced Petition For Rulemaking filed by North American Teletrac and Location Technologies, Inc. ("Petitioner") with the Federal Communications Commission ("FCC") on May 28, 1992 and appearing on Public Notice, Report No. 1897, released June 23, 1992. The Commission invited Comments on the Rulemaking Petition.

2. LS holds licenses in the name of Roger D. Linquist d/b/a Location Services for Automatic Vehicle Monitoring ("AVM") systems in California; Michigan; Texas; New York; Pennsylvania; Massachusetts; Washington, D.C. and vicinity; Florida; and Illinois.

3. LS supports the spirit and intent of the Rulemaking proposals that the petitioner has proposed and discusses below the five areas that it generally supports.

No. of Copies rec'd 0+4
List A B C D E

Background

4. The petitioner requested that the Commission replace the interim rules for AVM systems with permanent rules and it listed five major inadequacies of the interim rules.

1. The interim rules lack modern technical specifications and equipment authorization procedures.

2. Absent rules designed to minimize interference between co-channel, wideband pulse-ranging AVM systems, it is likely that harmful interference will occur as systems proliferate.

3. The interim rules do not provide for a standardized frequency for a forward link. Absent a standardized frequency for the forward link, however, interference could result that will degrade system performance.

4. The interim rules only provide for locating vehicles. However, technology has advanced far beyond vehicle location as its only use. Thus, the interim rules hinder innovation.

5. The interim rules, simply because they are interim, discourage large scale investment in deployment of AVM technology.

LS addresses each of the five inadequacies below.

Technical Specification and Equipment Authorization Procedures

5. Type acceptance required for AVM systems should be required once new systems have stabilized their design. However, because new systems will likely employ new technology, a temporary waiver on the type acceptance process for new system design substantially assists competitive systems to be commercially introduced on a timely basis rather than be delayed due to the cost and time associated with a type acceptance process. (Unlike cellular telephone or paging services, AVM

service currently involves proprietary equipment designs.) Engineering changes are inevitable as new technology is introduced to commercial operations and such equipment may substantially delay market entry of new competitors if such modifications require type acceptance cycle in the early stages. Therefore, a minimum 18 month temporary authorization following commercial introduction would provide important flexibility to new AVM system operators before type acceptance was required. In the interim period, protection would be afforded other operators in and out of band by requiring equipment to meet the FCC masking rules for the AVM frequency band, or §90.239(e)(2)(iii).

Co-channel Interference

6. **Wideband.** LS agrees that co-channel interference should be avoided if AVM systems are to realize practical cost/performance constraints and technical system performance objectives. Furthermore, the 8 MHz wideband proposal would provide an opportunity to minimize cost of network and mobile AVM equipment, while maximizing both location accuracy and system capacity. However, there are currently two licensees in the upper band for most of the top 10 MSAs in the U.S. and each cannot have exclusive use of the 8 MHz in the 918-926 MHz band. These issues must be resolved in a way that the same rules apply to both upper and lower AVM bands in order to ensure a "level competitive playing field."

7. **Narrowband.** An area of concern in the petitioner's proposal is its proposal to grandfather narrowband license holders granted licenses in the wideband frequency band. Any narrowband broadcast would interfere unacceptably with wideband low power transmissions designed for AVM applications (particularly with low power, portable equipment). Consequently, we would recommend that the Commission be flexible concerning encouraging relocation of narrowband users to other narrowband frequencies such as in the 903-904 MHz and 926-927 MHz bands. To the extent that the petitioner has already been successful in causing such narrowband interferers to move out of the lower band (and possibly into the upper band), this flexibility may be very important to manage what might be an unacceptable co-channel interference problem for the upperband licensee(s).

Standardized Frequency
Assignment for the Forward Link

8. Furthermore, Teletrac's proposal calls for 250 kHz for the forward link AVM transmission to be located in each other's wideband return link (i.e., forward link for 904-912 band is located at 924.890-925.140 MHz in the upper 918-926 MHz band). This poses a problem of the upperband licensee(s) not being able to use the 840 kHz at the band edge for wideband signalling, setting aside 1.1 MHz. This can be easily addressed by placing the forward link at the band edge in the upper band, that is, at 925.750-926.000 MHz. Thus, the upper band operator effectively sacrifices only 250 kHz of the wideband rather than 1.110 MHz of the 8 MHz band. Similarly, the lowerband operator should have

the same opportunity to set the forward link at 904.000-904.250 MHz (see Table 1).

TABLE 1

WideBand

	Return Link	Forward Link
Lower AVM Band	904-912 MHz	925.750-926.000 MHz
Upper AVM Band	918-926 MHz	904.000-904.250 MHz

Broaden Rules to Monitor All Animate and Inanimate Objects

9. All forms of location services should be permitted under AVM operations. Whereas vehicle dispatching functions and stolen car protection services normally require permanent or fixed vehicle installation, many other applications require that the unit be portable and suitable for carrying on a person. Other uses could include personal security services ("panic-button" and subsequent location determination), locating wandering elderly people, locating field sales or service personnel and many other applications, including public safety and law enforcement. Also non-vehicular "object" location determination can be also addressed to cover important shipments of capital equipment or other valuable merchandise.

Interim Rules Discourage Large Scale Investment

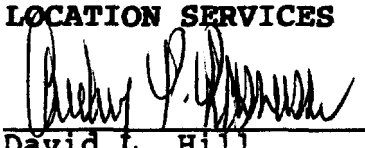
10. Permanent rules will remove the current risk of investment and operation that exist under the interim rules. Due

to the significant investment and expense of starting subsequent operations in a new industry, permanent rules would permit companies to focus on the market and technology risks of the AVM business and not on the licensing risks. In this regard, it is also important to broaden the base of potential service offerings to animate and inanimate objects to attract significant capital and competition to continue evolving radiolocation technology that will benefit AVM services in general.

11. The Commission is requested to take these comments into consideration in fashioning its Notice of Proposed Rulemaking in this proceeding.

Respectfully submitted,

LOCATION SERVICES

By: 

David L. Hill
Audrey P. Rasmussen
Its Attorneys

O'Connor & Hannan
1919 Pennsylvania Avenue, N.W.
Suite 800
Washington, D.C. 20006
(202) 887-1400

Dated: July 23, 1992

CERTIFICATE OF SERVICE

I, Gladys L. Nichols, do hereby certify that on this 23rd day of July, 1992, the foregoing **COMMENTS OF LOCATION SERVICES** was served to the following persons by First Class Mail:

Stanley M. Gorinson, Esq.
Lyndee Wells, Esq.
Winthrop, Stimson, Putnam & Roberts
1133 Connecticut Avenue, N.W.
Washington, D.C. 20036

Gladys L. Nichols